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GIS . In The News

NEWS FROM THE CITY OF SALISBURY ◆ NORTH CAROLINA COMMUNITY

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IN THIS ISSUE

GIS DIVISION NEWS

North Carolina GIS Conference a Great Success

By Patrick Kennerly, Adrian Rollans, and Kathryn Clifton
City of Salisbury Planner, and Rowan County GIS Coordinator, and City of Salisbury GIS Coordinator

The bi-annual NC GIS Conference was held in Winston-Salem, NC at the Benton Convention Center on February 20-21, 2003. The conference was sponsored by the North Carolina Center for Geographic Information and Analysis (NCCGIA) and the North Carolina Chapter of the Urban and Regional Information Systems Association (NCURISA). Over 800 people were in attendance. Representatives from the City of Salisbury and Rowan County were able to attend a number of the sessions. Their comments about sessions they attended are provided to give insight to other GIS users about projects that are taking place across the state.

Patrick Kennerly

GIS and Homeland Security: The 9/11 Experience

Mike Kevany of PlanGraphics, Inc. described how, in the aftermath of 9/11, the City of New York GIS Utility contributed to the rescue and cleanup effort. The GIS Utility was located near "ground zero" and was forced to evacuate. Fortunately, they were able to quickly set up in another location and had a complete data backup that enabled them to be up and running by that afternoon. Among other things, GIS data proved to be invaluable in locating potential hazards and other items underneath "the pile". Mr. Kevany stressed the importance of having shelters and evacuation routes mapped ***before*** (emphasis added) the onset of an emergency.

Spotlight on Internet Mapping Applications

Representatives from Henderson County and Mecklenburg County provided demonstrations of their GIS websites. A wide range of data layers have been made available online, including parcel data, street centerlines, aerial photography, watersheds, school districts, real estate transactions, etc. At the current time, there are 26 counties (shown on map in red) in North Carolina that have some online mapping capabilities. Rowan County and the City of Salisbury intend to join this list this calendar year.

Floodplain Mapping in Your Backyard

Several speakers touched on the ongoing NC Floodplain Mapping Program [http://www.ncfloodmaps.com]. So far, the state has completed the new maps for several of the basins in the eastern part of the state. The Yadkin and Catawba River basins are among the next group to be studied, with the LIDAR mapping flights having commenced this month. This LIDAR data that is being used by the state to generate the new flood maps will be available to local governments, and could be a tremendous asset in developing other types of data layers.

Charlotte/Mecklenburg, working with FEMA, recently updated their floodplain maps, which dated from the 1970's. Based on 1999 land use, they found that, on average, the base flood elevation (BFE) had risen about 1.9 feet from the earlier maps. They also looked at the expected future land use at complete build out of each watershed (FLUM), and found that the BFE would be on average about 4.3

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GIS City of SALISBURY

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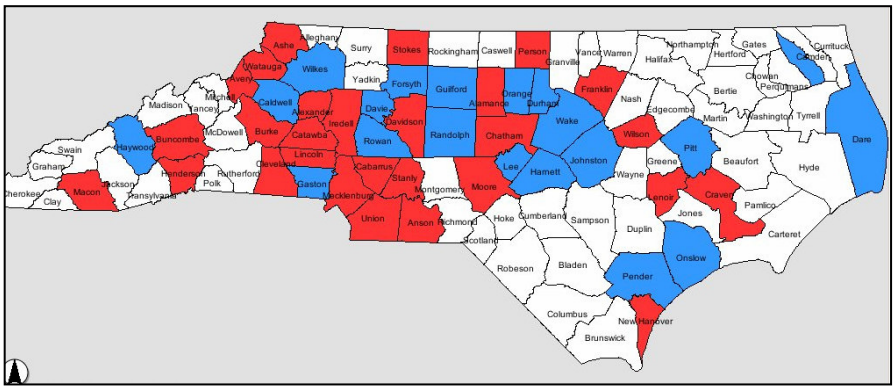
feet higher that on the earlier maps. Using this new standard (FLUM), their average floodway width increased from 290' to 454', and the average 100-year floodplain increased from 429' to 611' in width.

Adrian Rollans

Town Meeting: Building Partnerships in North Carolina

A major theme of the Conference this year centered around the growing need of fostering partnerships between local and state/federal government agencies. One example of such an initiative is the North Carolina One Map Program.



North Carolina One Map is an initiative by the Geographic Information Coordinating Council with a goal of establishing a statewide framework of geographic information. state and local officials who would work together to outline the content of this framework data. The primary goal of this initiative would be internet access to a statewide dataset by 2005. Data would be available on a 24 hour basis and would be free to search, view, and acquire.

Several hurdles that were discussed at the Conference included security concerns for sensitive information and a lack of data statewide. The GICC reported that 80% of NC Counties have digital data that could be distributed by NC One Map. Look for the GICC to be contacting local governments to begin establishing partnerships for this program.

Kathryn Clifton

Utilities System Integration: A Map to Success

Rob Bailey from Charlotte Mecklenburg Utilities discussed the multi-year implementation of GIS into their existing business processes. Goals included linking to existing customer information system databases to provide improved customer service, maintaining data for constantly changing water and sewer systems, and populating additional attribute information on features in order to implement future GIS projects. For Charlotte Mecklenburg, this meant a budget of $2.5 million and a commitment by internal staff to create new business processes geared toward data maintenance. Staff were involved in the process through workshops and user needs assessment surveys. All of this was done so that Charlotte Mecklenburg Utilities could become more proactive rather than reactive in the maintenance of their water and wastewater systems.

Engineering Change at a Utility

Tracy Ferguson and Scott Bryant of the City of Greensboro discussed the seven year project of integrating GIS into municipal stormwater management. The project began with multiple goals in mind—improve water quality, improve drainage management, and improve flood hazard mitigation. Greensboro constituted 115 square miles of the Cape Fear River Basin.

With that much area to cover, it was obvious that consultants were needed to complete the initial inventory. Consultants armed with pen top computers were able to inventory pipe systems, culverts, bridges, open channels, lakes, and ponds, etc. Pertinent information about each item was collected—location, material, size, elevations, condition, etc. All of this came at a considerable price of roughly $40,000 per square mile ($4.6 million). With the big hurdles out of the way, well-trained in-house staff are able to maintain the information for all to use.

GIS in Public Safety

Three different speakers showcased their uses of GIS within their Police and Fire Departments. City of Wilson Police Chief Jeff Powell and Fire Chief Don Oliver's presentation was aptly named "Guns and Hoses." They utilize GIS in vehicle accident mitigation, tracking of criminal activity, identification and categorization of vacant buildings, and in preparing a city-wide security assessment. It was great to see that these Chiefs were so supportive of GIS and excited by how they had applied it.

Jennifer Morgan of the Town of Cary presented information about critical incident response. Morgan explained that in her scenario "critical incident" would be equated to the horrible event that took place at Columbine High School in

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PROJECT UPDATE

Rowan County Orthophotography Project Near Completion

By Kathryn Clifton
City of Salisbury GIS Coordinator

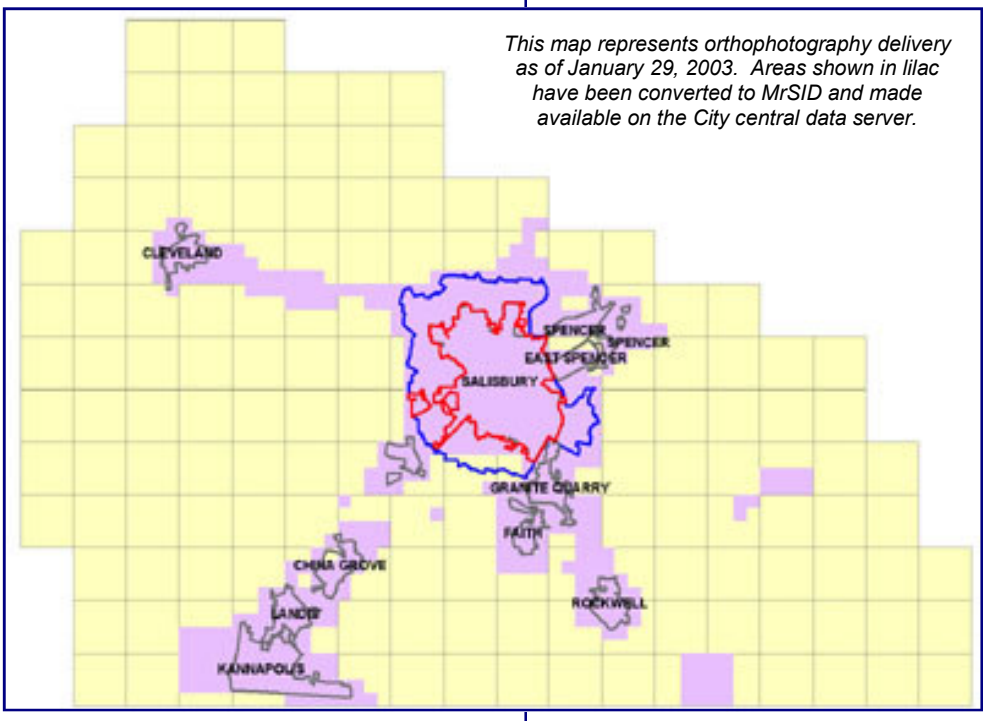
Rowan County orthophotography is still being delivered on schedule by Aero-Dynamics, Corporation of Charlotte, NC. All 100 scale orthophotography has been delivered, and now some 200 and 400 scale is arriving by CD.

Shipments of orthophotography from Aero-Dynamics, Corporation have arrived in TIF format. However, because of space constraints on the centralized GIS data server at the City of Salisbury, all imagery has been converted to MrSID format as it arrived.

So, just how do you go about systematically converting 600 images? Why, you write Visual Basic scripts to automate the process! Although the writing of the scripts was tedious, it has certainly paid off. Visual Basic scripts are used to write .bat files that interface with ArcCatalog to batch process large numbers of images. Persons interested in acquiring these scripts for use with converting their own imagery may contact Kathryn Clifton.

What is the next step? Image catalogs will be created for City GIS users that will be used to display adjacent orthophotos without having to merge or mosaic them together into one large file. This means quicker drawing times, and no more scenarios of determining which tile number the image is that you need, etc. Definitely an increase in productivity!

For more information about how you can obtain access to this valuable data, contact Kathryn Clifton. ◆



This map represents orthophotography delivery as of January 29, 2003. Areas shown in lilac have been converted to MrSID and made available on the City central data server.

USER INSIGHT

Comments & Suggestions Welcome

Your comments and suggestions for *GIS In the News* would be greatly appreciated. Also, if you have a question about GIS, its uses, software, etc. please submit them as well.

Just send an e-mail to Kathryn Clifton with the subject "GIS In the News". ◆

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Littleton, CO. Having such information as building floor plans, fire alarm and sprinkler shutoff information, escape routes, and power supply, security, and room locations would be critical should another incident of this magnitude occur. By using GIS, she was able to locate a particular school within the Town of Cary, zoom to its location, and pull up floor plans and both internal and external pictures of the school. This information was distributed to Town of Cary emergency management personnel via CD, and was also made available on a central server.

Address This!

Martha Lombard of Spatial Focus, Inc. discussed the importance of a common, shared Master Street Address Guide (MSAG) for municipalities and counties. She indicated that for ease of linking the MSAG to external databases, an address identification number should be generated for each valid address with the jurisdiction.

Her model centered around the creation of points for each address, thus allowing for multiple addresses on individual parcels, as well as 3-D modeling of addresses, where multi-story addresses (apartments, suites, etc.) area assigned an elevation value in addition to its location. Lombard stressed that aliases for streets (route numbers or alternate names) must also be included in an address data model.

For more information about the NC GIS Conference, contact any of the contributors to this article. ◆

TRAINING OPPORTUNITIES

The instructor must have at least two weeks' notice prior to the date you would like to receive training so that adequate manuals, etc. can be ordered.

ArcView 3.2
Training is available for the desktop application ArcView 3.2. Class size is limited to ten students.

ArcView 8.2 (ArcGIS)
Training is available for the desktop application ArcGIS. Class size is limited to six students.

Classes are held the third Wednesday and Thursday of March, May, July, September, and November in the City of Salisbury Training Room at 132 North Main Street.

Contact Kathryn Clifton if you are interested in training for ArcView 3.2 or ArcView 8.2 (ArcGIS). ◆

USER INSIGHT

Dear GUS,

Dear GUS (GIS User Specialist) is a column that will address common questions that GIS users may encounter.

Dear GUS,
I'm excited about all of the new data that the City and County is getting! When will is be available on the internet? Signed, GIS Surfer

Dear GIS Surfer,
That is an excellent question. Both the City of Salisbury and Rowan County want to make this data available to you on the web. However, they will be going about it in different ways in the coming year.

Rowan County has contracted with Anderson & Associates, Inc. of Greensboro, NC to make their data available on the web at http://www.webgis.net. The City of Salisbury will develop custom applications geared toward citizen requests. In the meantime, you can download some frequently requested maps in PDF format on the GIS Division's Virtual Map Counter [http://gis.salisburync.org/services/virtual_map_counter.asp].

If you would like to submit a question to GUS, simply direct your e-mail to deargus@salisburync.org. Or visit the Dear GUS webpage at http://gis.salisburync.org/dear_gus.asp. ◆

GIS MEETING & CONFERENCE CALENDAR

GIS Users Group Meeting
- February 27, 2003 9:15 AM
- April 17, 2003 12 NOON
- June 19, 2003 9:15 AM

GIS Users Group Meetings are held bi-monthly at The Plaza, 100 West Innes Street, in the Seminar Room on the second floor. Meetings alternate between morning and afternoon.

CADre (http://www.cadresys.com)
5701 Westpark Drive Suite 110 Charlotte, NC 28217
PH 704-523-3339
- Tuesday March 4, 2003 2-4 PM
  Check out the latest large-format plotter/copier/scan-to-file solutions from Océ. A demonstration of Raster Design (formerly CAD Overlay) will be included as well. This event will be held at the Océ Showroom at 5935 Carnegie Boulevard Charlotte, NC 28209

ESRI (http://www.esri.com)
3325 Springbank Lane Suite 200 Charlotte, NC 28226
- March 27, 2003 9AM-4PM
  Migrating Coverages to the Geodatabase

Geospatial Information & Technology Association
GITA (http://www.gita.org)
- March 2-5, 2003 San Antonio, TX

Urban & Regional Information Systems Association
(URISA) (http://www.urisa.org/)
- August 17-20, 2003 Providence, RI
  Street Smart & Address Savvy
- October 11-15, 2003 Atlanta, GA
  Annual Conference

If you know of an upcoming event that may be of interest to other AutoCAD and GIS users, please e-mail Kathryn Clifton with the location, date, and other details. ◆

CITY OF SALISBURY
GIS DIVISION
217 South Main Street
Salisbury, NC 28144

Kathryn Clifton, GIS Coordinator
PH 704-638-5246
FX 704-638-8522
EM katclif@salisburync.org